

IN THE ABSTRACT

Please replace the "Abstract" with the following:

Disclosed is a leaky-wave dual polarized slot type antenna, including: ~~first and second feeding circuit sections comprised of N first strip lines and N second strip lines with a loop every first period along the X axis on the first dielectric layer and a second period along the Y axis, in which the N first strip lines and the N second strip lines are parallel to each other being alternate, and each length of Ls1 and Ls2 for the first period satisfies the equation of, first and second multi channel dividers formed at once and the other sides of the first dielectric layer, to connect the N first strip lines and the N second strip lines parallel with each other; and first and second central ports formed in the opposite direction of the cavity, each of the feeding circuit sections being connected to the first and second multi channel dividers; and first and second slot sections being formed by patterning the second shielding layer, in which M first and M second slots are arrayed along the direction of the X axis and each of the first and second slots forms N row first and N row second slot arrays, respectively, which cross the first and second strip lines for each, the first slot and the second slot being orthogonal to each other a first shielding layer lying in an XY plane; a first dielectric layer on top of the first shielding layer; a first feeding circuit section formed on the top of the first dielectric layer, including a plurality of first strip lines formed of first loops with a first designated shape from one side of the dielectric layer in the direction of the X-axis at a predetermined first period, in order to feed electromagnetic waves; a second feeding circuit section formed on the top of the first dielectric layer, including a plurality of second strip lines formed of second loops with a second designated shape from the other side of the dielectric layer in the direction of the X-axis at the predetermined first period, in order to feed the electromagnetic waves; a second dielectric layer formed on the top part of the~~

first and second feeding circuit sections; and a second shielding layer with a first slot section and a second slot section, formed on the top of the second dielectric layer, transmitting the electromagnetic waves fed to the first and second feeding circuit sections as vertical polarization and horizontal polarization.